

**FBI Laboratory**2501 Investigation Parkway
Quantico, Virginia 22135**REPORT OF EXAMINATION**

To: Pittsburgh
Squad 9/JTTF
SA Walter Giardina

Date: December 17, 2008

Case ID No.: 266M-PG-75752-LAB

Lab No.: 080610015 ZW

Reference: Communication dated June 10, 2008

Your No.:

Title: MOUNTAIN LIGHTNING

Date specimens received: June 10, 2008

The following specimens were received and examined in the Explosives Unit:

**THE FOLLOWING ITEMS WERE RECOVERED FROM THE RESIDENCE OF
BRADLEY KAHLE ON JUNE 8, 2008:**

- Q23 Improvised explosive device (Your item 1, 1B47, E4360029)
- Q23.1 Powder removed from Q23
- Q24 Improvised explosive device (Your item 1, 1B47, E4360029)
- Q25 Improvised explosive device (Your item 1, 1B47, E4360029)
- Q26 Improvised explosive device (Your item 1, 1B47, E4360029)
- Q26.1 Powder removed from Q26
- Q27 Improvised explosive device (Your item 1, 1B47, E4360029)
- Q27.1 Powder removed from Q27

KNOWN STANDARD - TEST SHOT #1:

A 16 inch square concrete paver having a thickness of approximately 1 3/4 inches was placed on an asphalt surface. A block of ballistic gelatin measuring approximately 8 inches in length, 8 inches wide and 18 inches in height and weighting approximately 40 pounds was placed on the paver. A known standard pyrotechnic was inserted into the center of the block of ballistic gelatin and initiated with an electric match. The known standard pyrotechnic functioned as designed.

Q29 - TEST SHOT # 2:

A 16 inch square concrete paver having a thickness of approximately 1 3/4 inches was placed on an asphalt surface. A block of ballistic gelatin measuring approximately 8 inches in length, 8 inches wide and 18 inches in height and weighting approximately 40 pounds was placed on the paver. Q29 was inserted into the center of the block of ballistic gelatin and initiated with an electric match. Q29 functioned as designed.

Q24 - TEST SHOT #3:

A 16 inch square concrete paver having a thickness of approximately 1 3/4 inches was placed on an asphalt surface. A block of ballistic gelatin measuring approximately 8 inches in length, 8 inches wide and 18 inches in height and weighting approximately 40 pounds was placed on the paver. Q24 was inserted into the center of the block of ballistic gelatin and initiated with an electric match. Q24 functioned as designed.

KNOWN STANDARD - TEST SHOT #4:

A 16 inch square concrete paver having a thickness of approximately 1 3/4 inches was placed on an asphalt surface. A concrete block measuring approximately 15 1/2 inches in length, 5 1/2 inches in width, 11 inches in height and weighting approximately 24 pounds was placed on the concrete paver. A known standard pyrotechnic measuring approximately 1 1/2 inches in length and 9/16 inch in diameter was placed inside the concrete block and initiated with an electric match. The known standard pyrotechnic functioned as designed.

Q23 contained approximately 46.695 grams of a pyrotechnic explosive mixture.

Q26 contained approximately 45.327 grams of a pyrotechnic explosive mixture.

Q27 contained approximately 10.324 grams of a pyrotechnic explosive mixture.

Q38 contained approximately 15.989 grams of a pyrotechnic explosive mixture.

For information on the chemical analysis conducted on the main charge explosive, see the FBI Laboratory Report of David A. McCollam, Explosives Unit, dated June 18, 2008.

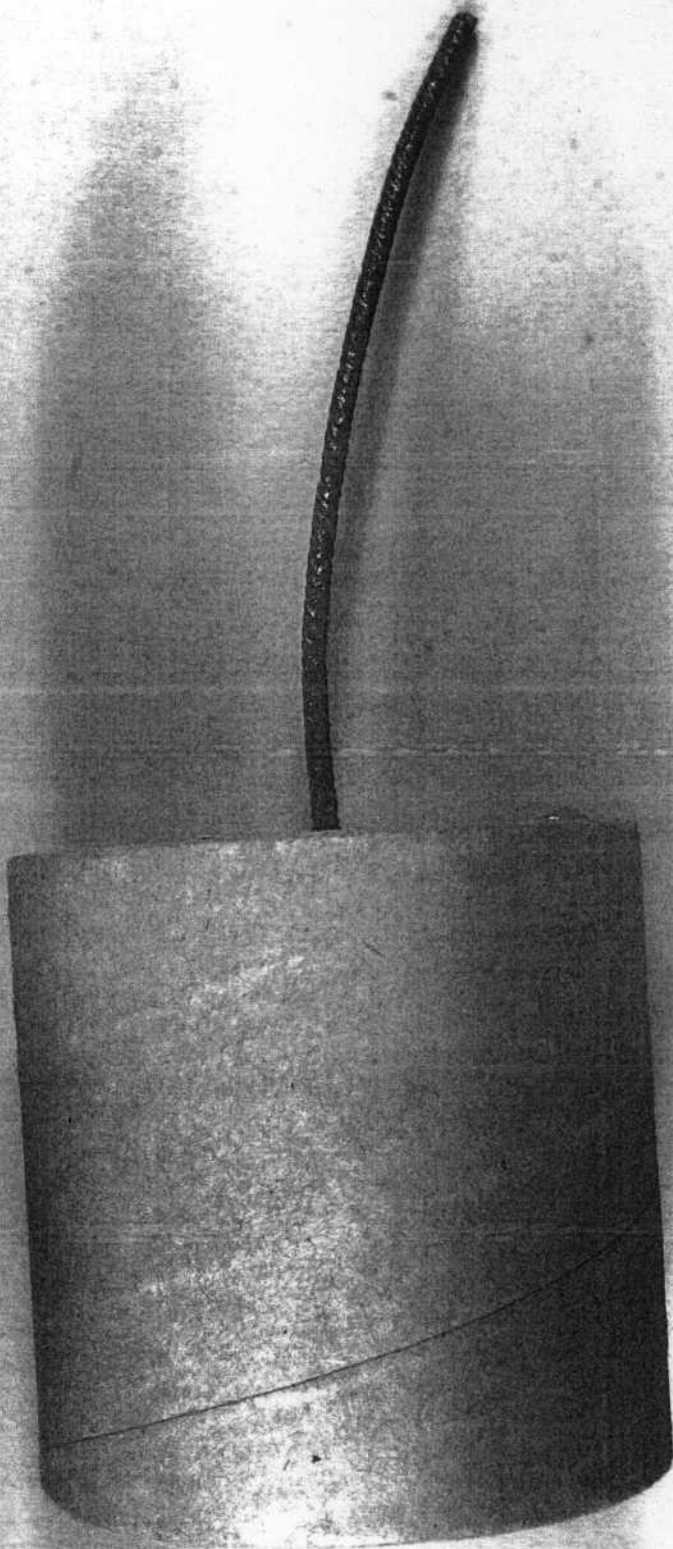
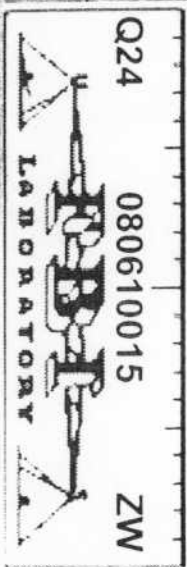
KNOWN STANDARD:

Known standard pyrotechnic's were purchased from Phantom Fireworks of Pennsylvania, 12761 Buck Valley Road, Warfordsburg, Pennsylvania for testing purposes. One (1) of the known standards was inerted in the FBI Laboratory on December 16, 2008 by this Explosive and Hazardous Examiner, at the FBI Laboratory, Quantico, Virginia.

The commercially manufactured known standard pyrotechnic consisted of a red-colored cardboard cylinder, measuring approximately 1 1/2 inches in length and 9/16 inch in diameter. The approximate total weight of the known standard pyrotechnic was 7.6 grams. According to the American Pyrotechnics Association the legal limit of explosive material in a consumer pyrotechnic is 50 milligrams. Consumer pyrotechnics are designated as "1.4G" pyrotechnics.

EXPLOSIVE EFFECTS TEST:

In order to evaluate the explosive potential of submitted specimens, explosive tests were conducted on December 17, 2008, at the FBI demolition range, located on the Quantico Marine Corps Base, Quantico, Virginia. A known standard, commercially manufactured pyrotechnic device was also utilized in this test series. The test shots were filmed by personnel from the FBI Forensic Audio, Video and Image Analysis (FAVIA) Unit. Copies of the resulting video will be provided to your office. The following is a description of the test shots, as depicted on the FAVIA video.





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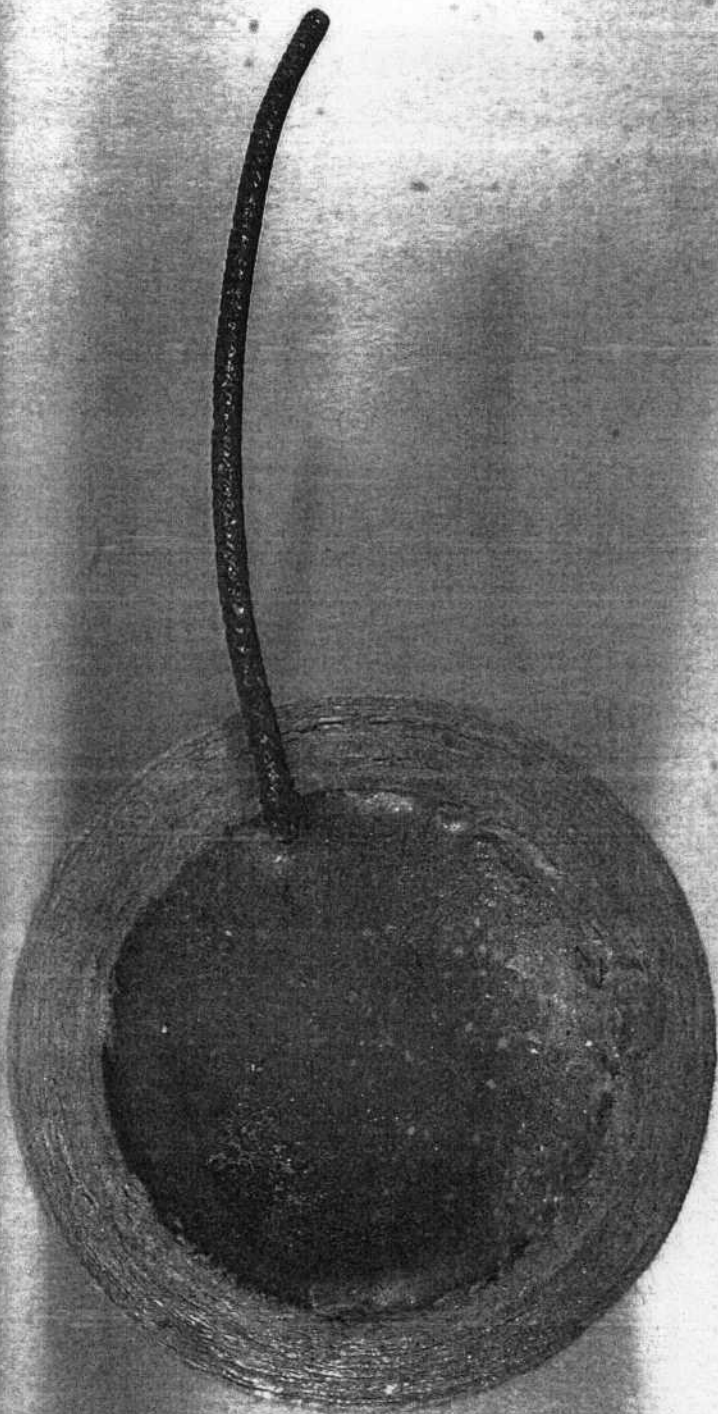
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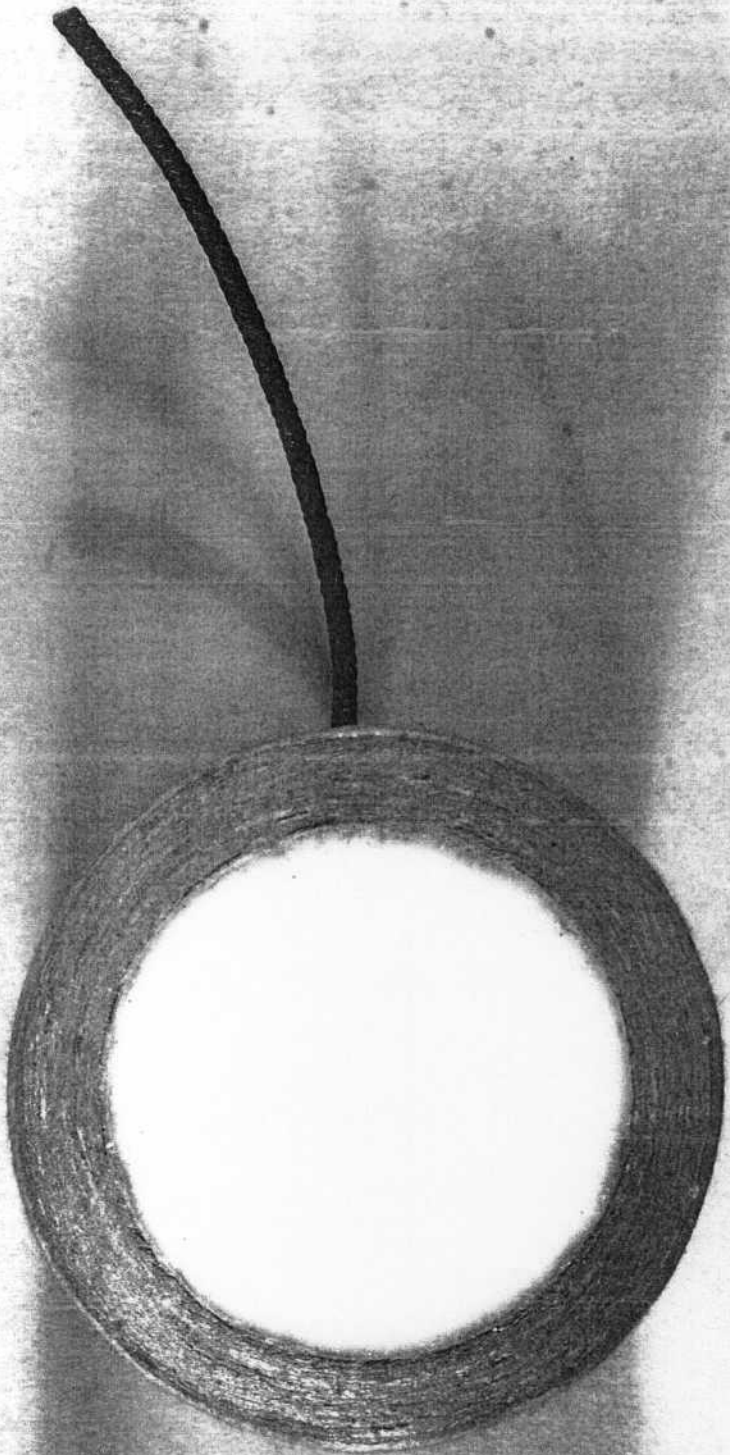
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WES

Q24	080610015	ZW